

In the claims – listing replaces all prior:

1. (Currently amended) A method to determine, ~~almost immediately~~, whether a patient has taken a medication, comprising

providing to a patient a medication comprising a combination of at least one active therapeutic agent and an odorous compound or olfactory marker, which is not chemically part of the active therapeutic agent itself, detectable in gaseous exhaled breath, the combination to be taken by the patient as a result of the patient's own actions;

obtaining a sample of the patient's gaseous exhaled breath;

analyzing the sample of the patient's breath utilizing an ~~instrument-adapted~~ electronic nose to detect said odorous compound or marker detectable in gaseous exhaled breath to ascertain the presence or absence of said marker in the patient's breath ~~almost immediately after taking said medication~~, where the presence of the odorous compound or marker is an indication that the patient has taken the medication at a prescribed time and in a prescribed dosage and the absence of the odorous compound or marker is an indication that the patient has not taken the medication at all or at a prescribed time or in a prescribed dosage; wherein the medication is to be taken by volitional patient action at specified times and in prescribed dosage; and,

based on the analysis, determining ~~almost immediately~~ whether the patient has taken the medication or not at a prescribed time or in a prescribed dosage.

2. (Cancelled)

3. (Cancelled)

4. (Currently amended). The method of claim 1 wherein the sample of the patient's breath is analyzed to ascertain the presence or absence of said odorous compound or marker by sensor technology selected from the group consisting of semiconductor gas sensor technology and conductive polymer gas sensor technology.

5. (Currently amended) The method of claim 4 wherein if the odorous compound or marker is present in the sample of the patient's breath, the sensor technology produces a unique electronic fingerprint which is an indication of the presence of the odorous compound or marker in the patient's breath.

6. (Currently amended) The method of claim 1 wherein the odorous compound or marker is selected from trans-Anethole (1-methoxy-4-propenyl benzene) - anise; Benzaldehyde (benzoic aldehyde) - bitter almond; Butyl isobutyrate (n-butyl 2, methyl propanoate) - pineapple; Cinnamaldehyde (3-phenylpropenal) - cinnamon; Citral (2-trans-3, 7-dimethyl-2, 6-octadiene-1-al) - citrus; Menthol (1-methyl-4-isopropylcyclohexane-3-ol) - menthol; and alpha-Pinene (2, 6, 6-trimethylbicyclo-(3,1,1)-2-heptene) - pine.

7. (Currently amended) The method of claim 1 wherein the sample of the patient's breath is analyzed to ascertain the presence or absence of said odorous compound or marker by a spectrophotometer.

8. (Currently amended) The method of claim 1 wherein the sample of the patient's breath is analyzed to ascertain the presence or absence of said odorous compound or marker by a mass spectrometer.

9. (Currently amended) The method of claim 1 wherein the odorous compound or marker is an additive combined with the medication.

10. (Currently amended) The method of claim 1 wherein the odorous compound or marker is provided with the medication in the form of a coating on the medication.

11. (Original) The method of claim 10 wherein a substance to stimulate salivation is included with the marker.

12. (Currently amended) The method of claim 1 wherein said providing comprises providing the odorous compound or marker with said medication as a liquid.

13. (Currently amended) The method of claim 1 wherein said providing comprises providing the odorous compound or marker with said medication for the patient to take via the lungs.

14. (Currently amended) The method of claim 1 wherein said providing comprises providing the odorous compound or marker with said medication for the patient to take intranasally.

15. (Currently amended) The method of claim 1 wherein said providing comprises providing the odorous compound or marker with said medication for the patient to take intravenously.

16. (Currently amended) The method of claim 1 further comprising the step of recording results regarding the presence or absence of the odorous compound or marker as provided from the analysis of the sample of the patient's breath.

17. (Previously presented) The method of claim 16, further comprising the step of transmitting the results from the analysis of the sample of the patient's breath to an individual interested in the results.

18. (Currently amended) The method of claim 1 where the analysis of the sample of the patient's breath includes comparing any odorous compound or marker sensed in the sample of the patient's breath with a predetermined signature profile of a specific odorous compound or marker.

19. (Currently amended) The method of claim 18 wherein the predetermined signature profile of a specific odorous compound or marker is associated with a specific drug.

20. (Currently amended) The method of claim 18 wherein the predetermined signature profile of a specific odorous compound or marker is associated with a class of drugs.

21. (Original) The method of claim 1 further comprising the step of capturing the sample of the patient's breath in a vessel prior to analysis.

22. (Original) The method of claim 1 further comprising the step of dehumidifying the sample of the patient's breath prior to analysis.

23. (Currently amended) The method of claim 1 wherein the odorous compound or marker is not detectable unless it first reacts with enzymes in the patient's mouth.

24. (Currently amended) The method of claim 1 wherein the odorous compound or marker is not detectable unless it first reacts with acids in the patient's stomach.

25. (Currently amended) The method of claim 1 wherein the odorous compound or marker is not detectable unless it first is absorbed in the patient's gastrointestinal tract and then is, at least partially, excreted from the lungs.

26. (Currently amended) The method of claim 1, further comprising: if it is determined that the patient did take the medication, analyzing the sample of the patient's breath to ascertain the concentration of said odorous compound or marker in the patient's breath.

27. (Currently amended) The method of claim 1 further comprising identifying a baseline odorous compound or marker spectrum for the patient at a time prior to a time at which it is desired to ascertain whether a patient has taken a medication.

28. (Canceled)

29. (Currently amended) A method of producing medication which is detectable as an indication of patient compliance in taking the medication ~~almost immediately after taking said medication~~ comprising the steps of:

identifying an odorous compound or detectable olfactory marker substance detectable ~~almost immediately after taking said medication~~ in gaseous exhaled breath, and

combining a medication with said odorous compound or detectable marker substance, wherein said medication is to be taken by volitional patient action at specified times whereby subsequent analysis of the patient's breath will ~~almost immediately~~ confirm the presence or absence of said odorous compound or marker substance and thus indicate whether the patient has complied in taking said medication at a specified time and at a specified dosage, wherein said combining comprises a step selected from the group consisting of: providing said odorous compound or marker as a coating to or physically combining said odorous compound or marker with said medication for administration in the form of pills, capsules, and fast-dissolving tablets, and admixing said odorous compound or marker with said medication for administration in a liquid form selected from oral administration of a syrup or via inhalation.

30. (Currently amended) The method of claim 1 wherein said providing comprises providing the odorous compound or marker with a medication for the patient to take transdermally.

31. (Cancelled)

32. (Currently amended) The method of claim 1 wherein the odorous compound or marker is a combination of odorous compounds or markers combined as an additive with the medication.

33. (Previously presented) The method of claim 1 wherein more than one therapeutically active agent is included in the medication.

34. (Cancelled)

35. (Currently amended) The method of claim 1 wherein said odorous compound or marker is a Generally Recognized as Safe compound.

36. (New) The method of claim 1 wherein the patient is alerted as to the results of said method and if the result of said method indicates non-compliance, this can be remedied.

37. (Currently amended) The method of claim 1 wherein said obtaining a sample of the patient's gaseous exhaled breath and said analyzing the sample of the patient's breath utilizing an instrument adapted to detect said odorous compound or marker occurs at said patient's home or other remote location and wherein the results of said obtaining and said analyzing are transmitted via a communication means for compliance monitoring.